## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant:

GILL et al.

Examiner: Group Art Unit:

Unassigned Unassigned

Serial No :

Unassigned

Docket No.:

Filed:

July 29, 2003

HSJ920030016US2 (HITG.054PA)

Title: METHOD AND APPARATUS FOR ENHANCING THERMAL

> STABILITY, IMPROVING BIASING AND REDUCING DAMAGE FROM ELECTROSTATIC DISCHARGE IN SELF-PINNED ABUTTED JUNCTION HEADS HAVING A FIRST SELF-PINNED LAYER

EXTENDING UNDER THE HARD BIAS LAYERS

CERTIFICATE UNDER 37 CFR 1.10

Express Mail' mailing label number: EV 309496523 US

Date of Denosit: July 29, 2003

I hereby certify that this paper or fee is being deposited with the United States Postal Service 'Express Mail Post Office To Addressee' service under 37 CFR 1.10 and is addressed to the Commissioner for Patents, P.O. Box 1450. Alexandria, VA 22313-1450.

## INFORMATION DISCLOSURE STATEMENT (37 C.F.R. §1.97(b))

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

## Dear Sir:

With regard to the above-identified application, the items of information listed on the enclosed Form 1449 are brought to the attention of the Examiner.

This statement should be considered because it is submitted either within three months of the filing date or before the first Office Action of the above-identified application. Accordingly, no fee is due for consideration of the items listed on the enclosed Form 1449.

In accordance with 37 C.F.R. §1.98(a)(2), a copy of each document or other information listed on the enclosed Form 1449 is provided.

Please note that any notations or markings on the attached documents do not reflect particular relevance, or lack thereof, to the present application, nor were they necessarily made by

anyone affiliated with the prosecution of the present application.

No representation is made that a reference is "prior art" within the meaning of 35 U.S.C.

 $\S\S$  102 and 103 and Applicants reserve the right, pursuant to 37 C.F.R.  $\S$  1.131 or otherwise, to

establish that the reference(s) are not "prior art." Moreover. Applicants do not represent that a

reference has been thoroughly reviewed or that any relevance of any portion of a reference is

intended.

Consideration of the items listed is respectfully requested. Pursuant to the provisions of

M.P.E.P. 609, it is requested that the Examiner return a copy of the attached Form 1449, marked

as being considered and initialed by the Examiner, to the undersigned with the next official

communication.

Respectfully submitted,

Crawford Maunu PLLC 1270 Northland Drive

Suite 390 St. Paul, MN 55120

651/686-6633

Dated: July 29, 2003

Bv:

David W. Lynch Reg. No. 36,204

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Date Mailed: July 29, 2003 Sheet 1 of 1

FORM 1449*	ORM 1449* INFORMATION DISCLOSURE STATEMENT		Application Number:		
IN AN APPLICATION		Applicant: GILL et al.			
	(Use several sheets if necessary)	Filing Date: 07/29/2003	Group Art Unit: unassigned		

EXAMINER INITIAL	DOCUM	ENT NO.	DATE	NAME	CLASS	SUBCLASS	FILING IF APPRO	
	US 2002/01	54456 A1	10/24/2002	CAREY et al.				
	US 2002/01	49889 A1	10/17/2002	GILL				
	US 2002/01	54457 A1	10/24/2002	HORNG et al.				
	US 2002/01	54455 A1	10/24/2002	LENSSEN				
	US 2002/00	24780 A1	02/28/2002	MAO et al.				
	6,433,972		08/13/2002	MAO et al.				
	6,348,274		02/19/2002	KAMIGUCHI et al.				
	6,252,750		06/26/2001	GILL				
	6,324,037		11/27/2001	ZHU et al.				
	5,018,037		05/21/1991	KROUNBI et al.				
	US 2001/00	04798 A1	06/28/2001	GILL				
	6,385,017		05/07/2002	MIN et al.				
	5,583,725		12/10/1996	COFFEY et al.				
	6,344,953 6,146,776 US 2002/0085323 A1 US 2001/0026425 A1		02/05/2002	KAUTZKY et al.				
			11/14/2000	FUKUZAWA et al.				
			07/04/2002	SMITH et al.				
			10/04/2001	MIYAZAWA et al.				
			F	DREIGN PATENT DOCUMEN	NTS			
	DOCUMENT NO.		DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
					YES	NO		
	JP11045415A		1999-02-16	JP			Abstract only	
			L	<u> </u>		<u> </u>		L
		ОТНЕ	R DOCUMENTS	(Including Author, Title, Date	e, Pertinent Page	s, Etc.)		
	July 1998	Takahashi, M., Maeda, T., Inage, K., Sakai, M., Morita, H., and Matsuzaki, M., "EDS Induced Pinned Layer Reversal in Spin-Valve GMR Heads," <i>IEEE TRANSACTIONS OM MACNETICS</i> , Vol. 34, No. 4., July 1998. Hung, Silas T., Wong, C. Y., Osborn, Mark, Kagaoan, Joel, Zhang, L. Z., and Bordeos, Randy, "A Study of GMR Read Sensor Induced by Soft EDS Using Magnetoresistive Sensitivity Mapping (MSM)."						
	unknown							

	EXAMINER	DATE CONSIDERED		
EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and no considered. Include copy of this form for next communication to the Applicant.				